



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,491	11/27/2001	Jutta Eichler	VOS0004/US	1445

33072 7590 12/10/2004
KAGAN BINDER, PLLC
SUITE 200, MAPLE ISLAND BUILDING
221 MAIN STREET NORTH
STILLWATER, MN 55082

EXAMINER

PADMANABHAN, KARTIC

ART UNIT	PAPER NUMBER
----------	--------------

1641

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,491

Applicant(s)

EICHLER ET AL.

Examiner

Kartic Padmanabhan

Art Unit

1641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-19,23-27,35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) 23-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-19,35 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 8-19,23-27,35 and 36 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. This application contains claims 23-27 drawn to an invention nonelected with traverse in the paper dated 1/23/04. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
2. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Priority

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany and with WIPO on 5/28/99 and 5/26/00, respectively. It is noted, however, that applicant has not filed a certified copy of either application as required by 35 U.S.C. 119(b).

Specification

4. Applicant has neglected to include a section with the brief description of the drawings, as required by MPEP 608.01(f) and 37 CFR 1.74.
5. The use of the trademarks Sephadex and Biacore have been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 8-19 and 35-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 8 is rejected as vague and indefinite for the recitation of "capable" because it has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. In addition, the recitation of "enables" renders the claim vague and indefinite because it is unclear if the monolayer is actually formed or not.

9. Claim 18 is rejected as vague and indefinite for the recitation of "a solid phase" because it is unclear if applicant is referring the same solid phase as recited in claim 8 or a different one."

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1641

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 8-19 and 35-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Sluka et al. (US Pat. 6,221,674 B1: English language equivalent of EP 872 735 A1). The reference discloses a process for the application of reagent spots, wherein a liquid containing an adsorptive binding reagent is contacted with spatially defined areas of solid phase for a time sufficient to allow the formation of adsorptive bonds between reagent and solid phase. The solid phase may be a metal or metal oxide. (Col. 2, lines 7-15). In this process, a self-assembled monolayer of the binding reagent is formed on the metal or metal oxide surface (Col. 2, lines 26-35). Thiol and disulfide reagents are especially preferred (Col. 3, lines 4-19). The adsorptive binding reagents of the reference also preferably contain at least one specifically bindable group, such as biotin, which specifically binds to the analyte to be determined (Col. 3, lines 32-37). Suitable adsorptive binding reagents are shown in Figures 2a-d. The structures of the binding reagents shown in the aforementioned figures are sufficient to meet the structural limitations of the anchor molecule of the presently pending claims.

12. Claims 8-19 and 35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Knoll et al. (US Pat. 5,763,191). The reference discloses a solid phase reactant that is adsorbed to a matrix via anchor groups (abstract). The carrier surface may be a metal, and thiol or disulfide groups are suitable as the anchor groups for these surfaces (Col. 3, lines 5-19). The anchor group is preferably attached to the solid phase via a spacer molecule, which spacer preferably has an alkylene group. One side of the spacer contains the anchor group (thiol or disulfide), and the other side has linking groups, such as amino or hydroxyl groups which may be linked to a

Art Unit: 1641

carboxyl to form an ester or amide (Col. 3, lines 20-42). There may also be a hydrophilic linker between the spacer and solid phase reactant (Col. 4, lines 37-47). Figure 3 contains a list of the solid phase reactants and their structures, which are sufficient to meet the structural limitations of the anchor molecule of the presently pending claims.

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 8-19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 15-20 of U.S. Pub. No. 2004/0023366 A1.

Although the conflicting claims are not identical, they are not patentably distinct from each other

Art Unit: 1641

because both sets of claims recite thiol anchor molecules comprising a thiol group, a structural moiety R for the formation of a self-assembled monolayer, and a head group for binding ligand, and one of ordinary skill in the art would recognize that the claims read on one another.

Response to Arguments

15. Applicant's arguments filed 11/22/04 have been fully considered and are persuasive to overcome several rejections under 35 USC 112, but they are not persuasive to overcome the remainder of the presently pending rejections.

16. Applicant's argument with respect to the specification is not convincing. Although section headings may only be preferred and not required, a section of a brief description of the drawings is required under MPEP 608.01(f) and 37 CFR 1.74, which states in pertinent part, "When there are drawings, there *shall* (emphasis added) be a brief description of the several views of the drawings...." In addition, applicant argues that the trademark is usage is proper, as the trademarks have allegedly been capitalized; however, applicant is directed to page 4 of the specification as merely 1 example in which the trademark Biacore has not been completely capitalized. The whole word should be capitalized, and not merely the first letter.

17. Applicant's arguments with respect to the term "capable" are unconvincing. While functional terminology is indeed permitted, the term "capable of" does not add any function, as it merely requires the ability to perform, but not performance itself. It is noted that the number of patents using the term in the claims is not germane to the present application.

18. Applicant's arguments regarding the Sluka and Knoll references are not convincing. Applicant argues that Sluka do not teach any reaction process to form their reagent or the use of a unique intermediate; however, claims drawn to the anchor molecule itself are in no way

Art Unit: 1641

required to teach the process by which it is formed. As long as the components of the product are taught, as the examiner maintains, the process of formation does not merit patentable weight. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a unique intermediate) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

19. Applicant's arguments that the "method claims" of the present application are not taught by the references are moot, as the method claims have been previously withdrawn from consideration.

20. Applicant's arguments with respect to the obviousness type double patenting rejection are not convincing. Applicant argues that specific examples in the specification are not taught by the present application; however, applicant cannot rely on example in the specification when only the claims are relied upon for a double patenting rejection, and limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The HS-R-M structure in the US 2004/0023366 is equivalent to the structure of the instant claims.

Conclusion

Claims 8-19 and 35-36 are rejected.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1641

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kartic Padmanabhan whose telephone number is 571-272-0825. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kartic Padmanabhan
Patent Examiner
Art Unit 1641




CHRISTOPHER L. CHIN
PRIMARY EXAMINER
GROUP 1800/641
12/2/04